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DECEMBER 6, 1982

IRON AGE

THE MAGAZINE FOR METAL PRODUCING MANAGEMENT

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THE WORLD STEEL COMMUNITY PUTS ITS HOUSE IN ORDER

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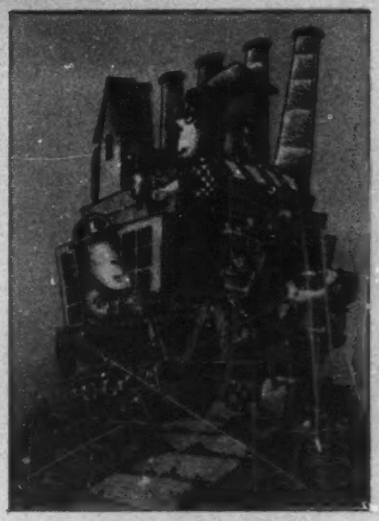

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METALWORKING PRICE TRENDS

Recession continues to hold tight rein on prices

Price softness at the wholesale level continued in October. Only higher tags on 1983 model-year cars and trucks kept prices from actually dipping again as they did in September.

The Labor Dept.'s price index for producers' finished goods rose by 0.5 pct in October. In the month, prices of autos and trucks rose sharply and accounted for just about all the rise in the price index. (See table.) These soaring prices came about as higher-priced '83 models followed a month where motor vehicle prices were pushed down by end-of-the-year clearance sales.

Despite the October surge in auto-truck prices, the change in producers' finished goods prices from a year ago, came only to 3.6 pct. In October of last year, the 12-month price increase at that time came to 7.4 pct.

Prices for capital equipment in October moved up 0.2 pct. This followed a decline of 0.4 pct in September. Again, much of the latest-month price hike was due to the spurt of autos and trucks.

The only metalworking product line, aside from motor vehicles, that showed any unusual upward push in prices was agricultural machinery. In view of the current soft market demand for such equipment, it is difficult to see why these prices rose so strongly. Explanations from prices analysts and producers not only vary, but differ.

There was also price strength shown by oilfield and gasfield machinery in October. But here, a few sales of big, high-price equipment units was enough to give a kick to the price index. With relatively few sales being made, sales of a few upgrade units with hefty tags could account for all the price hike.

Just about every economic sign presently points to continued slow business activity in metalworking lines. That means prices will probably slide a bit over at least the next couple of months. In just about all producers' goods lines, it is a buyers' market that rules.

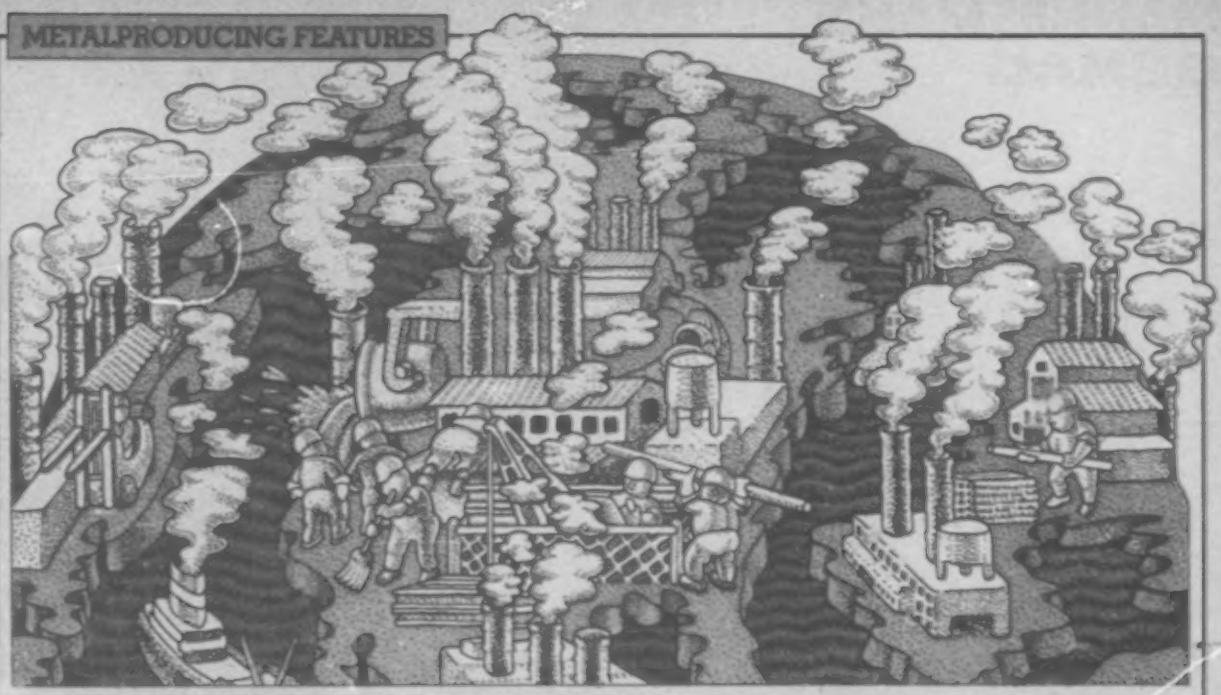
A real danger of this disinflation is the damage it can do to already-weak corporate earnings and liquidity. The adverse effect on companies could continue well into any recovery cycle.

It now looks like producer goods prices for 1982 will be up by about 3.5 to 3.9 pct from last year. This would be a big slide from the 71 pct rise scored in 1981. It would also be the smallest year-to-year increase since 1971.

Latest Month Covered: October, 1982

Products	Index Reading For Month (1967 = 100)	Pct Change From Previous Month	Pct Change From Year-Ago Month
Metal Cutting Machine Tools	373.1	+ 0.3	+ 5.5
Metal Forming Machine Tools	410.8	+ 0.1	+ 6.1
Agricultural Machinery & Equip.	317.0	+ 1.1	+ 7.3
Construction Machinery & Equip.	346.6	− 0.3	+ 5.6
Industrial Process Furnace & Ovens	356.1	+ 0.3	+ 5.3
Industrial Material Handling Equip.	285.6	− 0.1	+ 0.6
Pumps, Compressors & Allied Equip.	347.8	− 0.1	+ 4.5
Fluid Power Equip. (Dec. 1970 = 100)	247.2	+ 0.5	+ 8.5
Mechanical Power Transmission Equip.	311.2	− 1.2	+ 3.4
Automobiles	219.6	+ 9.3	+ 2.6
Motor Trucks—Light	273.9	+ 6.7	+ 1.7
Motor Trucks—Heavy	317.5	+ 9.8	+ 7.6
Railroad Equipment	357.5	+ 0.8	+ 5.6
Fabricated Metal Structural Products	303.7	− 0.2	+ 0.4
Electric [illegible]	291.2	+ 0.1	+ 0.6
Valves & Fittings	322.5	− 0.2	+ 1.9
Ball & Roller Bearings	335.3	NC	+ 4.3
Cutting Tools & Accessories	271.9	+ 0.1	+ 3.9
Heating Equipment	238.7	− 0.3	+ 4.2
Plumbing Fixtures & Brass Fittings	277.8	+ 0.3	+ 1.8
Metal Containers	328.7	NC	+ 3.3
Miscellaneous Metal Products	289.7	+ 0.1	+ 4.9

Data based on U.S. Labor Dept.'s Producer Price Index



WORLD STEEL PRODUCERS PUT A TIGHT GRIP ON WORLD STEEL OUTPUT

With steel profits a global rarity, steelmakers are putting their houses in order to reduce the limit of steel flowing into the world market.

By George McManus at the International Iron and Steel Institute meeting in Tokyo, Japan.

World Steel producers are moving to put their houses in order.

There is a general effort to limit the quantity of steel flowing into the world market. The much talked-about contraction of steel capacity has started. In the United States, steel companies are seeking to moderate the wage escalation that has contributed to trade problems.

The magnitude of the steel adjustment is brought out by the cast of characters. President Reagan; Prime Minister Margaret Thatcher of Great Britain; Chancellor Helmut Kohl of West Germany: All have been involved in smoothing troubled steel waters.

U.S. Commerce Secretary Malcolm Baldrige is credited with herculean efforts in negotiations between the U.S. and Europe. The big breakthrough came when these talks produced a Common Market agreement to limit shipments of carbon and alloy steels to about 5 pct of the U.S. market.

Coming only a few hours before the U.S. was due to impose countervailing duties, the European pact is expected to trigger a chain reaction of similar restraints.

"Without perceiving trade issues on an international basis, we would merely transfer problems from one hemisphere to another," said David M. Roderick, chairman of United States Steel Corp.

The Japanese seem amenable to some form of voluntary restraint or quota. "That is almost what we are doing now," says Minoru Kaneo, president of Japan's Nippon Kokan.

Mr. Roderick indicated efforts would be made to bring Third World countries into line. The Reagan Administration was working on proposals for restricting imports of specialty steels. These were urgently needed to keep the carbon steel limits from bringing a transfer of tons and problems to specialty markets.

While the imposition of steel trade restraints seems a dramatic break with the past, the real change may not be that great. What is starting to emerge is a picture of quiet arrangements governing steel trade outside the U.S.

U. S. Steel charges that Japanese steel has been diverted to the U.S. by an agreement that limits Japan's steel shipments to Europe. According to U. S. Steel, this is just one of many such deals.

"We've uncovered a number of other bilateral agreements," says Mr. Roderick. This suggests the U.S. is now simply being plugged into the world network.

There have been past attempts to keep steel trade within bounds. Voluntary quotas were instituted in 1969 by European and Japanese producers. These depended on the foreign mills' good

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will, which varied with market conditions. The voluntary restraints were dropped after 1974. The world boom had eased fears of oversupply. And U.S. courts had ruled that the restraints were illegal.

The newest attempt at restraint should be more successful. The agreement with Europe is an official, government thing. Steel shipments from Europe must be licensed. The Customs Bureau is directed by special legislation to deny admission to any unlicensed shipments of the covered products.

A second factor is that financial pressure is forcing companies and countries to deal with overcapacity. The problem of excess steel supply has long been recognized, but there has not been a general willingness to dispose of excess, obsolete facilities.

In 1982, it was not a question of willingness; the steel market was just not large enough to support the world steel establishment. As a result, steel companies were losing great gobs of money.

"My guess is that steel profit will be a global rarity if not actually extinct for calendar 1982," said Frederick G. Jaicks, chairman of Inland Steel Co. and also chairman of the International Iron & Steel Institute (IISI).

In the past, many governments were willing to bail out losing steel operations. This has been the big complaint of U.S. mills. Even in market economies, private companies could count on indirect help through economic stimulants.

In 1982, the governments, themselves, were going broke. Latin American countries have foreign debts totalling $250 billion. Of this, 75 percent is concentrated in steel-oriented nations: Mexico, Brazil, Argentina, and Venezuela.

In the United States, the prospect of a $100 billion deficit led the Reagan Administration to scale down tax provisions that would have lifted demand for steel and eventually helped generate steel capital.

Japan's $20 billion deficit has inhibited actions to stimulate that country's economy and steel market. "Given the size of Japan's fiscal deficit, there are limits to the kind of fiscal measures available to the government," said Haruo Mayekawa, governor of the Bank of Japan.

The financial squeeze has been reflected in capital deferments and plant shutdowns. Two big steel programs have been delayed by Venezuela. Armco Inc. has put its big seamless expansion on hold. Others are also applying the brakes.

"Certain non-essential spending programs have been postponed, stretched out or cancelled," says Mr. Roderick. Essential projects are going forward but at a slower pace, he says.

The most decisive capacity slash has been by British Steel Corp. "Manned capacity has been reduced from 23 million tons to 14.4 million tons," says David Grieves, managing director of personnel and social policy for British Steel. "Total manpower has been reduced from over 225,000 to around 90,000."

Britain's cutback began in 1977. That was the year Alan Wood Steel Co. went bankrupt and Youngstown Sheet & Tube Co. closed steel furnaces in the Youngstown area.

More recently, U. S. Steel has shut down its Youngstown steel works. The Midland, Pa., plant of Crucible Steel has been closed. Kaiser Steel Corp. has announced the end of iron making at Fontana, Calif. Bethlehem Steel Corp. is disposing of its West Coast mills.

"It's now estimated that, nationally, as much as 20 pct of U.S. domestic steelmaking capacity, or about 30 million tons, will be shut down within the next few years," says William J. Shields, president of Raritan River Steel Corp.

Underlying the recent cutbacks is a market situation that went from bad in 1980 and 1981 to awful in 1982. "This year promises to go down in the books as the worst within the memory of most senior steel executives," said Mr. Jaicks.

There was no argument on this point when steel leaders convened in Tokyo for the annual meeting of IISI. Yoshifumi Kumagai, president of Sumitomo Metal Industries, Ltd., referred to the "synchronized recession of the world economy."

Mr. Kanao of Nippon Kokan said his company's operations were down close to 60 pct of capacity.

"The world economy in 1982 is probably facing the worst recession since the 1930's," Lenhard J. Holschuh, secretary general of IISI.

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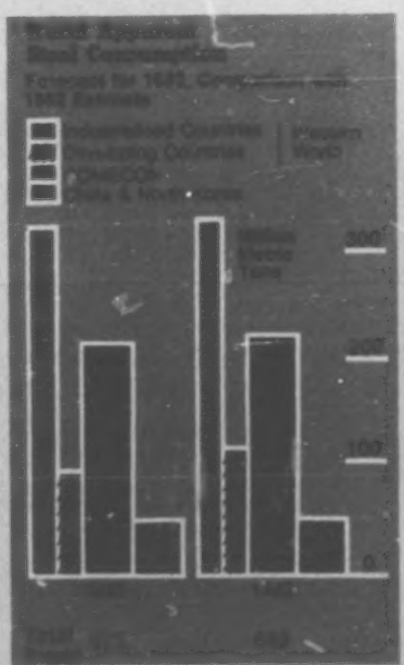

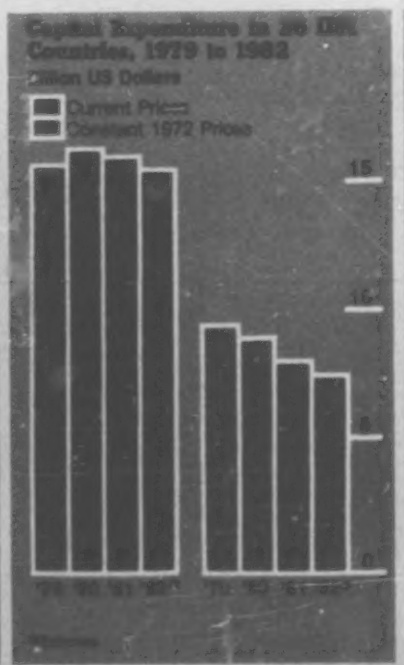

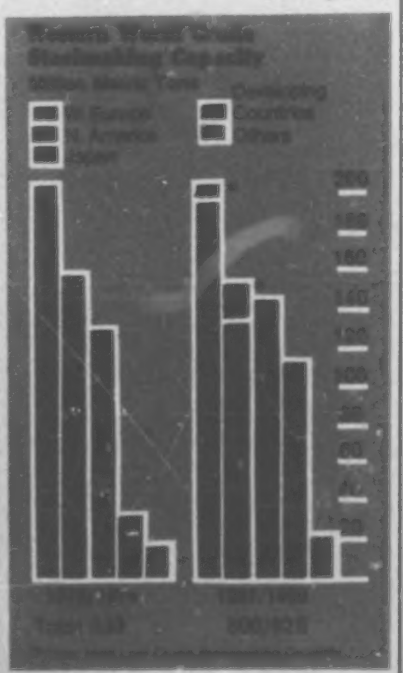

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Mr. Holschuh noted that Western World steel output was down 11 pct in the first eight months of 1982. He said things were getting steadily worse.

In his longer term projection, Mr. Holschuh held out little hope that steel problems would be solved booming demand. "The underlying trend growth rate will be around zero in the mature economies," he said. "For the next few years, there can be no question that existing capacity will be sufficient to cope with the rather slow growth in demand."

Hardest hit by the 1982 slump were American mills. Through August, raw steel output in the U.S. was down 38 pct from the first eight months of 1981. In the same period, Europe's steel output was down only 5 pct and Japan's production was up slightly.

American producers charge that foreign mills have maintained production by sending their surplus to the U.S. Through August, U.S. imports from the Common Market were up 3 pct and imports from Japan were down only 1 pct. Shipments of American mills to the U.S. market were down more than 30 pct.

"At one juncture earlier this year," said Mr. Jaicks, "steel imports into the U.S. soared to 26.2 pct of apparent consumption, while striking losses were being absorbed by domestic steel producers. No other Free World marketplace has been subjected to such a barrage nor could it have been."

Mr. Jaicks, who has ruffled foreign feathers at past IISI sessions, minced no words in assessing blame for trade problems. "Governments that subsidize their industrial sectors, and in the process upset world markets, make a travesty of true international competition."

Support for this charge came in a statement attributed to Willy Korf, whose Korf Industries operates steel plants in both the U.S. and Europe.

"The 70 pct of European steel companies that are dependent on the state have ceased to think and act in terms of free enterprise," said Mr. Korf. "They have come to regard themselves as employment agencies."

The trade issue began heating up in 1981 when U.S. demand lagged and imports surged. Steel imports rose from 15.5 million tons in 1980 to nearly 20 million tons in 1981. Ignoring the Trigger Price Mechanism, foreign steel producers captured more than 19 pct of the U.S. market.

The trigger system was officially abandoned on Jan. 11, 1982 when domestic mills filed dumping and countervailing duty suits against carbon steel producers in seven European countries plus Brazil and South Africa. The big target was Europe, which had boosted steel shipments to the U.S. more than 66 pct in 1981.

From the outset, there was talk that the real aim of domestic mills was some sort of quota. There was no great secret about this. Thomas C. Graham, president of Jones & Laughlin Steel Corp., said flatly that quantity restrictions were the only answer. Mr. Roderick of U. S. Steel repeatedly expressed a willingness to consider any effective alternative to the trade suits.

Domestic producers were well aware they faced an uphill struggle in seeking enforcement of the trade laws. The strengthening of the dollar made the most efficient European mills less vulnerable to price-based complaints. Even when currency rates were normal, domestic industries had had little success in securing the imposition of dumping and countervailing duties.

The steel companies didn't really have much choice. The Reagan Administration was dead set against unilateral quantity curbs.

"We would not engage in legislative proposals to establish a quota system," said Lionel Olmer, Undersecretary of Commerce for International Trade. "That is fundamentally contrary to the free trade philosophy of the Reagan Administration."

The Administration didn't want punitive duties either. Every other news story on the steel problem warned that

Why U.S. Steel Men Held Out for Tighter Controls

On Aug. 6, domestic steel mills rejected a trade agreement negotiated by the Department of Commerce with the Common Market. On Oct. 21, U.S. mills accepted an agreement which included pipe and tubing and which called for lower shares on most products.

Market shares for licensed products are given below:

	Aug. 6 Proposal	Oct. 21 agreement (Carbon and Alloy) Except Wire Rods)
	Market Share—Pct	Market Share—Pct
Hot rolled Sheet & Strip	7.43	6.81
Cold rolled sheet	5.15	5.11
Plate	5.98	5.36
Structurals	10.90	9.91
Wire rods	4.29	4.29
Hot rolled bars	3.01	2.38
Coated sheet	3.32	3.27
Tin plate	2.20	2.20
Rails	8.90	8.90
Stainless steel sheet & strip & stainless steel plate	4.08	—
Sheet piling	—	21.85

What the Steel Agreement with Europe Does

Running from Nov. 1, 1982 through Dec. 31, 1985, the recent agreement is designed to control 99 pct of the steel imported by the U.S. from Europe.

The agreement calls for 10 major carbon and alloy products to be covered by licenses from the European Community. Had this system been in effect in 1981, says the U.S. Commerce Dept., imports of the licensed products would have been 330,000 tons less and would have accounted for 5.46 pct of total supply.

The U.S. Treasury Dept. has been directed by special legislation to deny admission to any of the 10 products not covered by licenses. In Europe the failure of an exporter to abide by the licensing procedure can result in fines, forfeiture of goods, and imprisonment.

A separate agreement aims at keeping the European share of the U.S. pipe and tube market below the 1979-81 average. Had this agreement applied in 1981, says the Commerce Dept., imports of European pipe and tube would have been 815,000 tons less and would have accounted for 5.9 pct of the U.S. market. Enforcement will be through consultation.

Had the overall agreement been in effect in 1981, says the Commerce Dept., total imports of European steel last year would have been 5.13 pct of the U.S. market.

the levying of duties would bring 'massive retaliation' and start a trade war. Steel leaders complained that they were pictured as the aggressors in a situation where they were the aggrieved parties.

"It is regrettable that the principal focus of this dispute has been on the filing of the cases rather than on the subsidization and dumping," said Mr. Jaicks.

The Administration evidently believed the prospect of trade sanctions would bring quick voluntary restraint by the Europeans. The domestic suits would have a "chilling effect" on steel imports from Europe, predicted Mr. Olmer in February.

This proved to be a naive assumption. More than 1.6 million tons of foreign steel were imported in February and nearly 1.7 million tons in May. In the first half of 1982, steel imports from the Common Market were up 31 pct.

Meanwhile, the trade suits were winding their way slowly through the judicial process. The first step was not promising for domestic mills. On Feb. 19, the International Trade Commission (ITC) ruled that there had been no significant injury in 54 of the 92 cases filed. However, the remaining 38 covered most of the European carbon steel tonnage.

From then on, the various deadlines were accompanied by a series of last ditch, final efforts at compromise. In early June, strenuous negotiations failed to produce an agreement and on June 11, the Commerce Dept. made its preliminary ruling in the subsidy cases.

Subsidy margins of 40 pct were found on structurals, plate and bars from Britain. Subsidies of about 20 pct were found on French products. Other margins were: Italy, 18 pct; South Africa, 9 to 16 pct; and Brazil, 8 pct.

For Dutch, Luxembourg and West German producers, the Commerce Dept. found very small subsidies or none at all. The uneven pattern of the margins was to be a problem throughout subsequent negotiations. A country like West Germany had little direct incentive to escape duties and enter into a voluntary agreement.

The next crunch was July 25, the last date on which the trade suits could be terminated without the U.S. industry's approval. There was no agreement on that date.

On August 6, the Commerce Dept. and the Common Market did come up with a settlement calling for Europe to have a 5.75 pct share of the U.S. market. Included in the package were most carbon steel products plus stainless flat rolled grades. Not included were tubular products, tool steel, or stainless rod and bar.

"We believe the negotiated proposal is neither fair nor equitable . . .," says Mr. Roderick in announcing the domestic industry's rejection.

The proposal was "totally unacceptable," said Adolph J. Lena, chairman of AL Tech Specialty Steel Corp. and chairman of the specialty advisory committee.

That seemed to be it. Preliminary margins in the dumping cases were set by Commerce Dept. on Aug. 10. These ranged from 1 pct on Belgium structurals to more than 40 pct on sheet from Italy.

On Aug. 25, the final ruling of the Commerce Dept. scaled down subsidy margins. "We are extremely disappointed . . .," said Mr. Roderick. He referred to "pressures that are undoubtedly being brought to bear on the Administration from EC countries."

Still to be dealt with are imports from Japan and Third World countries.

Then came the hearings of the International Trade Commission on the injury phase of the countervailing duty cases. These were notable mostly for an informal recess conversation in which it was revealed that U. S. Steel was preparing a Section 301 complaint against Japan. This involved the agreement which allegedly diverted Japanese steel from Europe to the U.S.

"That agreement not only dealt with tonnage but also with price," said Mr. Roderick later. "Under that document, imports out of Japan (which had been 2 million tons) were reduced 87 pct over a four-year period."

The agreement was secret, said Mr. Roderick. "You need a security clearance to even see the documents; clearly they were trying to hide it." It is illegal under GATT, said Mr. Roderick to offer trade concessions to one nation without offering the same terms to other trading partners.

Under Section 301, the compensation sought by U. S. Steel could be a reduction in Japan's steel shipments to the U.S. That remedy was sought in a similar case filed in 1976.

The trade commission delayed its final decision on the injury phase of the subsidy complaints as long as possible—until Oct. 15. ITC then ruled that U.S. producers had been injured in 14 of the 16 cases. Dismissed were the complaints involving sheet and plate from West Germany.

The ITC decision meant domestic producers had established an important point. After months of deliberation and countless legal manhours, the steel companies had convinced a reluctant government that a large portion of the import tonnage was based on unfair tactics.

After the decision, however, all attention went to what would happen next. The Commerce Dept. had until Oct. 21 to impose countervailing duties. At this point, there was frantic negotiation with the heads of states involved.

An awkward circumstance was that the preceding week found most steel leaders in Tokyo at the IISI meeting. Although they might be sharing a luncheon table, Mr. Roderick and European steel executives were barred by antitrust laws from direct conversations on trade matters.

To keep posted on developments, Mr. Roderick had to call Washington at midnight because of the time difference. The Europeans, likewise, had to communicate through round-about government channels. As late as Oct. 12, Mr. Roderick said there was only a 50-50 chance of an agreement.

The big sticking point was tubular steel. Mannesmann of West Germany is a leading producer of pipe. Because of a line drawn in Treaty of Paris, tubular products don't come under the authority of the Common Market's steel commission. And again, the Germans would not have been directly affected by countervailing duties.

After top level intervention and marathon negotiations by Secretary Baldrige, the pipe problem was resolved. Around noon on Oct. 21, the Commerce Dept. announced that an agreement has been negotiated and had been accepted by the U.S. industry. The dumping and countervailing duty suits of domestic mills were withdrawn.

Mr. Roderick expressed his satisfaction. "President Reagan gave full support to the domestic industry's position and to the negotiators."

The agreement set specific market shares for 10 carbon and alloy products. Six of the market percentages were lower than what has been proposed in August. The 10 producers are to be covered by European licenses and the aggregate share is to be no more than 5.46 pct.

The total European share, including licensed and unlicensed products, is to be more more than 5.13 pct. The U.S. Customs Bureau will check to see that all designated products are properly licensed. Mr. Roderick considers this enforcement provision one of the key points of the agreement.

The tubular arrangement is separate. It calls for European producers to have a 5.9 pct share of the market. The enforcement language is fuzzy, but given

the depressed state of the U.S. oil country market, it's likely the Europeans will comply.

In its evaluation, the Commerce Dept. said steel imports would have been 1.14 million tons less in 1981 had the European agreement been in effect. Domestic mills look for the agreement to reduce imports from the Common Market by about that amount in 1983.

Still to be dealt with are steel imports from Japan and Third World countries. Also hanging fire in late October were specialty steels. Stainless sheet and plate were included in the proposed August agreement with Europe but were dropped from the final settlement. Stainless bar and rod, along with tool steels, were never included.

If imports are hurting carbon steel producers, they are killing the specialty mills. Imports have captured 57 pct of the stainless rod market and 48 pct of the tool steel market.

"My conclusion," says Dr. Lena, "is that we are already in a trade war and we are losing."

Losses include the shutdown of Crucible Steel's Midland, Pa., plant and the bankruptcy of Guterl Special Steel Corp. "Unemployment in some specialty steel companies has soared to over 50 pct," said domestic producers in a letter to President Reagan.

The specialty mills have filed seven dumping or countervailing duty suits, most of them against European producers. The mills realize this is like trying to bring down a flock of bird with a rifle. There are so many products and so many small producers it is almost impossible to address the whole problem with individual complaints.

What the companies want is a 'shotgun' approach. With this in mind, the companies filed a Section 301 case with the United States Trade Representative. Charged with illegal subsidies were specialty producers in Britain, Italy, France, Sweden, Austria, and Belgium. (The complaint against Brazil was dismissed.)

Section 301 gives the government authority to make an overall settlement of the trade problem, the specialty people explain; the President can impose quotas, increase tariffs, or negotiate orderly marketing agreements.

"The President should use his authority under Section 301 to develop a worldwide solution to the specialty steel unfair-trade practice problem," said Richard P. Simmons, president of Allegheny Ludlum Steel Corp.

Joining the specialty steel people in their exhortations was Lloyd McBride, president of United Steelworkers of America (USWA). The Steelworkers have been bitterly critical of Reaganomics and there was talk that the Administration would try and salvage some union votes by announcing trade measures for specialty imports on election day or just before.

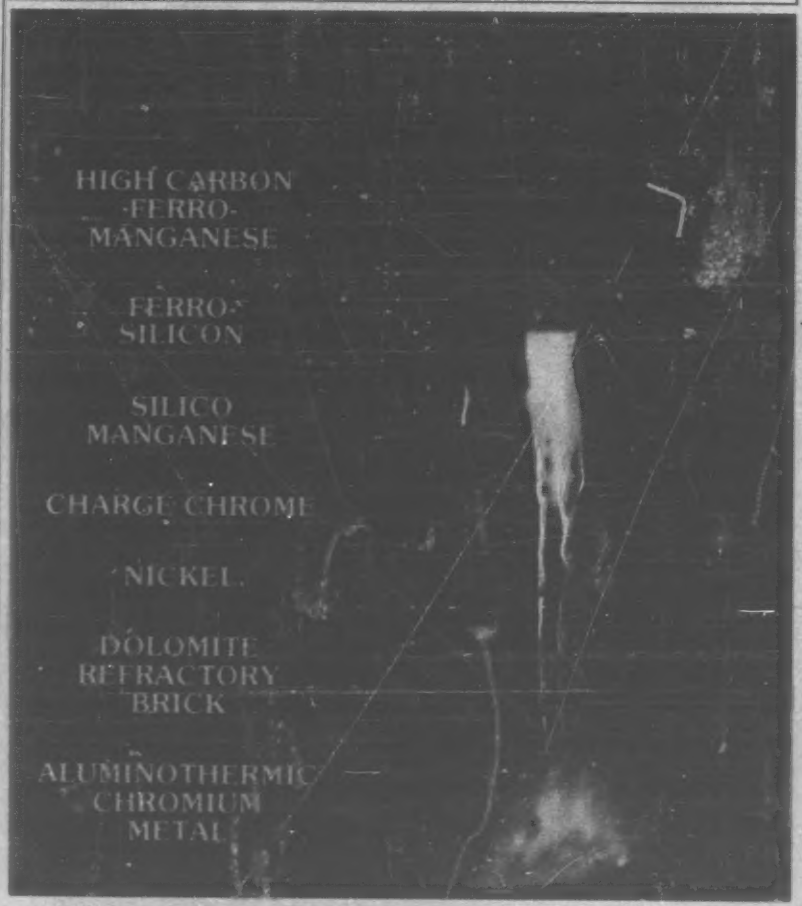
That day passed with no decision on the recommendation of Trade Representative William Brock. Mr. Brock reportedly proposed temporary restraints on specialty imports from the six European countries named in the complaint.

The retraints would remain in effect during an accelerated investigation of the cases. In addition, there would be efforts to negotiate specialty agreements with other nations.

Out of all this will probably come an agreement, or agreements, similar to the one covering European carbon steel. The fragmented nature of foreign specialty production is a problem that will have to be overcome.

"If the political will were there to do so," said Mr. Simmons, in early October, "the Europeans could negotiate a comprehensive agreement merely by sending different government officials (non-ECSC) to the table for discussion."

Unless there is an agreement or a restraint soon, specialty people fear carbon steel products from Europe will spill over into their market. A sharp September increase in stainless imports intensified the worries of domestic officials.



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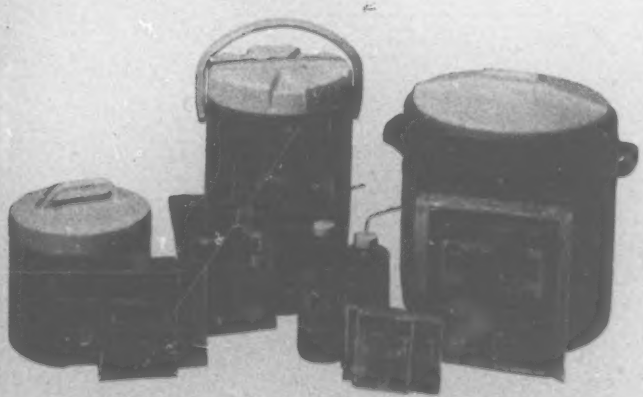

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For Information, Circle 153

The Japanese carbon steel situation seems less urgent. Japan's September deliveries to the U.S. were down 35 pct from September of 1981. The Japanese seem to be making good on their promise to pull back voluntarily.

Neither carbon steel nor specialty steel producers can expect permanent relief from import problems. The European carbon steel arrangement runs from Nov. 1, 1982 to Dec. 31, 1985. After three years, domestic mills will be on their own again.

Three years from now, the American steel industry will be a little more modern than it is today. Some continuous casting programs are going forward despite depressed conditions.

There should be some benefit from the consolidation of production and facilities. The steel workload will be concentrated on the most efficient mills.

Going with this will be a consolidation of the work force. Steel employment has fallen by 125,000 since August of 1981. The steel jobless rate is around 45 pct.

"It is important that all of us recognize that redundancy in labor will result from all the structural changes taking place in steel, in automotive . . . and in other manufacturing industries," says William R. Roesch, president of U. S. Steel.

Mr. Roesch sees basic steel going through an adjustment similar to that which cut coal mining employment in half after World War II.

This is not a very happy prospect, but does point up a key advantage of American steelmakers: They have complete discretion in gearing facilities and employment to the market.

That doesn't seem to be the case abroad. Willy Korf says the big European mills operate as employment agencies. In Japan, Nippon Kokan had about 33,000 employees in 1981. Although Nippon Kokan's operations have since fallen to around 60 pct, employment has risen to 35,000. Lifetime employment policies have barred layoffs.

If the world steel industry faces a prolonged recession, American mills are probably in the best position to scale downward. Domestic mills will also be benefitting from a more moderate rate of pay increase. The need for moderation was being conveyed to the Steelworkers in November contract talks.

What's really needed, of course, is a revival of the world steel market. Right now, there is no sign of even a partial recovery. □

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EFFECTIVE NOVEMBER 8, 1982

MATERIALS NEWSFRONT

Price & Production Data

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
North East Coast	156	141	153	224
Buffalo	30	30	30	60
Pittsburgh	126	115	126	308
Youngstown	68	50	67	124
Cleveland	81	83	104	140
Detroit	92	96	96	107
Chicago	326	337	341	516
Cincinnati	63	69	65	93
St. Louis	52	52	57	86
Southern	69	68	73	192
Western	48	48	65	127
U.S. Production	1,111	1,089	1,177	1,967

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports. Rail transportation, handling and unloading may be charged to the account of the buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural)..... gross-ton 80.50-86.9*
Old range, non-bessemer ..... gross-ton $32.78
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer.....gross-ton $32.25-32.53**

*80.50¢—Pickands Mather as of 1/27/81.
**86.9¢—U. S. Steel as of 3/15/82. Cleveland-Cliffs as of 2/26/82, Oglebay Norton as of 3/25/82, and Hanna Mining as of 2/26/82.

Steel Production, Composite Prices

(Effective November 8, 1982)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1982	To Date 1981
Net tons, in thousands	1,111	1,089	64,373	105,313
Capability Utilization Rate	37.6	36.8	49.2	80.3

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 4/4/82)	25.297	25.297	25.297	25.195
Pig Iron** (Net ton=2000 lbs.)	$213.00	$213.00	$213.00	$203.00
Scrap No. 1 hvy.*** (Gross ton=2240 lbs.)	$ 51.17	$ 51.50	$ 52.50	$ 80.17
No. 2 bundles	$ 38.83	$ 38.83	$ 39.50	$ 54.50

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	$ 52.50	$ 52.50	$ 55.50	$90.50
No. 1 steel, Philadelphia	54.50	55.50	55.50	68.50
No. 1 steel, Chicago	46.50	46.50	46.50	81.50
No. 1 bundles, Detroit	41.50	41.50	47.50	83.50
Low Phos., Youngstown	52.50	52.50	58.50	95.50
No. 1 mach'y cast., Pgh	64.50	64.50	66.50	93.50
No. 1 mach'y cast., Phila	98.50	98.50	98.50	111.50
No. 1 mach'y cast., Chi.	103.50	103.50	103.50	120.50

*Finished Steel Composite
Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
**Pig Iron Composite
Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
***Steel Scrap Composite
Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

Nonferrous Prices

(Effective November 8, 1982)
Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum	76.00	76.00-80.00	1/4/82
Copper (C)	72.00	71.00-72.00	10/19/82
Lead	22.00-26.00	23.00-26.00	11/3/82
Magnesium Ingot	134.00	125.00	6/1/81
Nickel	329.00	350.00	11/25/81
Titanium Sponge	555.00-585.00	555.00	4/29/82
Zinc	40.00-42.00	41.00-42.00	10/5/82

ALUMINUM: 99.5%. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig. Velasco, Tex. NICKEL: electro., Port Colborne, Canada. ZINC: high grade.

Antimony, American Laredo, Texas . $2.00
Beryllium-aluminum 5% Be, per lb. contained Be $201.00
Beryllium-copper, per lb. cont. Be $121.00
Beryllium 97% powder 200 ..... $166.00
Bismuth, ton lots ..... $1.35-$1.45
Cadmium, under one ton ..... $1.05-$1.15
Calcium, ton lots, crown $3.05
Chromium, 99.8% $3.75
Cobalt, 99%, cathode $12.50
Gold per troy oz. $417.50
Indium, dollars per troy oz. ..... $2.85-$4.00
Iridium, dollars per troy oz. $600
Magnesium sticks, 10,000 lbs. $1.91
Mercury, per 76-lb. f.o.b. N.Y. ..$360-$380
Molybdenum, lb. tech. moly oxides, 20 lb. MO can ..... $6.85-$8.50
Nickel oxide sinter at U.S. points of entry $3.12
Palladium, per troy oz. $140
Platinum, per troy oz. $475
Rhodium, per troy oz. $600.00
Silver ingots, per troy oz. $10.565
Vanadium $4.94
Zirconium sponge ..... $12.00-$17.00
(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb, EX-SMELTER, based on daily market in Penang in Malaysian dollars per kilo.)

Nov. 1—561.46
Nov. 2—561.46
Nov. 3—561.99
Nov. 4—559.57
Nov. 5—559.17

Scrap Prices

Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turning
Copper	67½	58¼
Yellow brass	59¼	54⅛
Red brass	63	56½
Comm. bronze	64	57
Mang. bronze	58⅞	57⅛
Free cutting rod ends	44	43

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	57
No. 2 copper wire	51
Light copper	42

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	53
No. 2 copper wire	47
Light copper	38
No. 1 composition	51
No. 1 comp. turnings	47
Hvy. yellow brass solids	33
Hvy. yellow brass turnings	26
Radiators	41

Aluminum

New mixed clips	24	—25
Old sheet	23	—24
Old cast	23	—24
Clean dry borings	24	—25

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	23	—24
Mixed L.C. clips	21	—22
Old sheets and cast	15	—16
Borings and turnings	12	—13
Duraluminum clippings	22	—23

Copper and Brass

No. 1 copper wire	44	—45
No. 2 copper wire	37	—38
Light copper	32	—33
Radiators	32	—33
No. 1 composition	41	—42
No. 1 composition turn'gs	39	—40
Cocks and faucets	28	—29
Clean heavy yellow brass	24	—25
Brass Pipe	28	—29
New soft brass clippings	36	—37

Lead

Heavy soft lead	10	—11
Whole batteries	5	— 6
Type metal	15	—16
Electrotype	20	—21

Nickel

Nickel solids	115	—120
Nickel rod ends	115	—120
Nickel sheets, clips	115	—120
Nickel turnings	55	— 60

Zinc

New zinc clippings	14	—15
Old diecast zinc	7	— 8

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EFFECTIVE NOVEMBER 8, 1982

MATERIALS NEWSFRONT

(Effective November 8, 1982) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 52.00 to	$ 53.00
No. 2 hvy. melting	45.00 to	46.00
No. 1 dealer bundles	63.00 to	64.00
No. 1 factory bundles (auto)	60.00 to	61.00
No. 2 bundles	38.00 to	39.00
No. 1 busheling	60.00 to	61.00
Machine shop turn.	6.00 to	7.00
Shoveling turnings	20.00 to	21.00
Cast iron borings	18.00 to	19.00
Low phos. punchings plate	67.00 to	68.00
Heavy turnings	45.00 to	46.00
No. 1 RR hvy. melting	65.00 to	66.00
Rails 2 ft. and under	80.00 to	81.00
Scrap rails, random lgth.	78.00 to	79.00
RR specialties	71.00 to	72.00
No. 1 machinery cast	64.00 to	65.00
Cupola cast	57.00 to	58.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	490.00 to	500.00
18-8 turnings	390.00 to	400.00

Chicago

No. 1 hvy. melting	$ 46.00 to	$ 47.00
No. 2 hvy. melting	42.00 to	43.00
No. 1 dealer bundles	55.00 to	56.00
No. 1 factory bundles (auto)	59.00 to	60.00
No. 2 dealer bundles	38.00 to	39.00
No. 1 busheling	56.00 to	57.00
Shredder scrap	55.00 to	56.00
Machine shop turn.	14.00 to	15.00
Mixed bor. and turn.	15.00 to	16.00
Shoveling turnings	19.00 to	20.00
Cast iron borings	33.00 to	34.00
Low phos. forge crop	76.00 to	77.00
Low phos. punchings plate ¼ in. and heavier	79.00 to	80.00
Low phos. 2 ft. and under	74.00 to	75.00
No. 1 RR hvy. melting	48.00 to	49.00
Scrap rails, random lgth.	49.00 to	50.00
Rerolling rails	85.00 to	86.00
Rails, 2 ft. and under	76.00 to	77.00
RR couplers and knuckles	69.00 to	70.00
RR car axles	102.00 to	103.00
No. 1 machinery cast	103.00 to	104.00
Cupola cast	89.00 to	90.00
Stove plate	76.00 to	77.00
Steel car wheels	59.00 to	60.00
Stainless		
18-8 bundles and solids	450.00 to	460.00
18-8 turnings	350.00 to	360.00
430 bundles and solids	95.00 to	100.00
430 turnings	65.00 to	70.00

Philadelphia

No. 1 hvy. melting	$ 53.00 to	$ 56.00
No. 2 hvy. melting	48.00 to	51.00
No. 1 dealer bundles	65.00 to	68.00
No. 2 dealer bundles	38.00 to	41.00
No. 1 busheling	65.00 to	68.00
Shredder scrap	71.00 to	74.00
Machine shop turn.	18.00 to	21.00
Mixed bor. and turn.	18.00 to	21.00
Shoveling turnings	30.00 to	33.00
Clean cast chemical borings	40.00 to	43.00
Low phos. 5 ft. and under	60.00 to	63.00
Low phos. 2 ft. punchings	85.00 to	88.00
Electric furnace bundles	75.00 to	78.00
RR specialties	74.00 to	77.00
Rails, 2 ft. and under	89.00 to	92.00
Cupola cast	55.00 to	58.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	97.00 to	100.00

Detroit

Broker buying prices per gross ton on cars:

No. 1 hvy. melting	$ 36.00 to	$ 37.00
No. 2 hvy. melting	34.00 to	35.00
No. 1 dealer bundles	41.00 to	42.00
No. 2 bundles	18.00 to	19.00
No. 1 busheling	40.00 to	41.00
Drop forge flashings	21.00 to	22.00
Machine shop turn.	14.00 to	15.00
Mixed borings and turn.	7.00 to	8.00
Shoveling turnings	14.00 to	15.00
Cast iron borings	5.00 to	6.00
Heavy breakable cast	24.00 to	25.00
Mixed cupola cast	40.00 to	41.00
Automobile cast	58.00 to	59.00
Stainless		
18-8 bundles and solids	395.00 to	405.00
18-8 turnings	285.00 to	295.00
430 bundles and solids	70.00 to	80.00

Youngstown

No. 1 hvy. melting	$ 45.00 to	$ 46.00
No. 2 hvy. melting	30.00 to	31.00
No. 1 dealer bundles	51.00 to	52.00
No. 2 dealer bundles	30.00 to	31.00
Machine shop turn.	2.00 to	3.00
Shoveling turnings	8.00 to	9.00
Low phos. plate	52.00 to	53.00
Electric furnace bundles	52.00 to	53.00
Galvanized bundles	42.00 to	43.00

Cleveland

No. 1 hvy. melting	$ 42.00 to	$ 43.00
No. 2 hvy. melting	26.00 to	27.00
No. 1 dealer bundles	46.00 to	47.00
No. 1 factory bundles	51.00 to	52.00
No. 2 bundles	22.00 to	23.00
No. 1 busheling	48.00 to	49.00
Machine shop turn.	2.00 to	3.00
Mixed bor. and turn.	2.00 to	3.00
Shoveling turnings	5.00 to	6.00
Cast iron borings	5.00 to	6.00
Cut structural & plates, 2 ft. and under	72.00 to	73.00
Low phos. punchings plate	72.00 to	73.00
Drop forge flashings	33.00 to	34.00
Foundry steel, 2 ft. & under	62.00 to	63.00
No. 1 RR hvy melting	63.00 to	64.00
Rails, 2 ft. and under	82.00 to	83.00
Rails, 18 in. and under	83.00 to	84.00
Steel axle turnings	69.00 to	70.00
Railroad cast	82.00 to	83.00
No. 1 machinery cast	82.00 to	83.00
Cupola cast	82.00 to	83.00
Stove plate	57.00 to	58.00
Stainless		
18-8 bundles	375.00 to	385.00
18-8 turnings	295.00 to	305.00
430 bundles	75.00 to	85.00

Buffalo

No. 1 hvy. melting	$ 25.00 to	$ 26.00
No. 2 hvy. melting	15.00 to	16.00
No. 1 busheling	32.00 to	33.00
No. 1 dealer bundles	30.00 to	31.00
No. 2 bundles	12.00 to	13.00
Machine shop turn.	1.00 to	2.00
Mixed bor. and turn.	8.00 to	9.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Low phos. plate	52.00 to	53.00
Structural and plate, 2 ft. and under	50.00 to	51.00
Rails, 2 ft. and under	42.00 to	43.00
Scrap rails, random lgth.	22.00 to	23.00
No. 1 machinery cast	65.00 to	66.00
No. 1 cupola cast	44.00 to	45.00

St. Louis

No. 1 hvy. melting	$ 47.00 to	$ 48.00
No. 2 hvy. melting	39.00 to	40.00
Foundry steel, 2 ft.	39.00 to	40.00
No. 1 dealer bundles	47.00 to	48.00
No. 2 bundles	36.00 to	37.00
Machine shop turn.	12.00 to	13.00
Shoveling turnings	18.00 to	19.00
Cast iron borings	30.00 to	31.00
No. 1 RR hvy. melting	47.00 to	48.00
Rails, random length	49.00 to	50.00
Rails, 18 in. and under	64.00 to	65.00
RR specialties	80.00 to	81.00
Cupola cast	70.00 to	71.00
Heavy breakable cast	48.00 to	49.00
Stove plate	70.00 to	71.00
Cast iron car wheels	49.00 to	50.00
Rerolling rails	84.00 to	85.00
Unstripped motor blocks	55.00 to	56.00

Birmingham

No. 1 heavy melting	$ 56.00 to	$ 57.00
No. 2 heavy melting	53.00 to	54.00
No. 1 dealer bundles	56.00 to	57.00
No. 2 bundles	43.00 to	44.00
No. 1 busheling	54.00 to	55.00
Shredder scrap	72.00 to	73.00
Machine shop. turn.	20.00 to	21.00
Shoveling turnings	25.00 to	26.00
Cast iron borings	26.00 to	27.00
Electric furnace bundles	52.00 to	53.00
Elec. furnace, 3 ft. & under	52.00 to	53.00
Structural and plate, 2 ft.	71.00 to	72.00
Structural and plate, 4 ft.	65.00 to	66.00
No. 1 RR hvy. melting	54.00 to	55.00
Scrap rails, random lgth.	59.00 to	60.00
Rails, 18 in. and under	74.00 to	75.00
Angles and splice bars	65.00 to	66.00
No. 1 cupola cast	76.00 to	77.00
Unstripped motor blocks	55.00 to	56.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 29.00 to	$ 30.00
No. 2 hvy. melting	27.00 to	28.00
No. 1 dealer bundles	30.00 to	31.00
No. 2 bundles	19.00 to	20.00
Machine shop turn.	1.00 to	2.00
Shoveling turnings	3.00 to	4.00
Cast iron borings	4.00 to	5.00
Low phos. 18 in. and under	54.00 to	55.00
Rails, random length	36.00 to	37.00
Rails, 2 ft. and under	63.00 to	64.00
No. 1 cupola cast	44.00 to	45.00
Heavy breakable cast	20.00 to	21.00
Drop broken cast	59.00 to	60.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 26.00 to	$ 27.00
No. 2 hvy. melting	22.00 to	24.00
No. 2 dealer bundles	22.00 to	23.00
Mixed bor. and turn.	7.00 to	8.00
Machine shop turn.	4.00 to	5.00
Shoveling turnings	10.00 to	12.00
Clean cast. chem. borings	34.00 to	35.00
No. 1 machinery cast	89.00 to	90.00
Mixed yard cast	38.00 to	39.00
Heavy breakable cast	14.00 to	15.00
Stainless		
18-8 prepared solids	400.00 to	425.00
18-8 turnings	350.00 to	375.00
430 prepared solids	90.00 to	100.00
410 solids	80.00 to	90.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 28.00 to	$ 30.00
No. 2 hvy. melting	20.00 to	22.00
No. 1 dealer bundles	28.00 to	30.00
No. 2 bundles	16.00 to	18.00
No. 1 busheling	28.00 to	30.00
Shredder scrap	38.00 to	40.00
Machine shop turn.	1.00 to	2.00
Shoveling turnings	1.00 to	2.00
No. 1 machinery cast	100.00 to	105.00
Mixed cupola cast	23.00 to	25.00
Heavy breakable cast	4.00 to	6.00

San Francisco

No. 1 hvy. melting	$ 40.00 to	$ 42.00
No. 2 hvy. melting	32.00 to	34.00
No. 1 dealer bundles	27.00 to	29.00
No. 2 dealer bundles	12.00 to	14.00
Machine shop turn.	4.00 to	6.00
Cast iron borings	4.00 to	6.00
No. 1 cupola cast	84.00 to	86.00

Los Angeles

No. 1 hvy. melting	$ 39.00 to	$ 41.00
No. 2 hvy. melting	28.00 to	30.00
No. 1 dealer bundles	26.00 to	28.00
No. 2 dealer bundles	9.00 to	11.00
Machine shop turn.	4.00 to	6.00
Shoveling turnings	8.00 to	10.00
Cast iron borings	4.00 to	6.00
Elec. furnace, 1 ft. and under (foundry)	85.00 to	87.00
No. 1 cupola cast	87.00 to	89.00

Seattle

No. 1 hvy. melting	$ 54.00 to	$ 56.00
No. 2 hvy. melting	43.00 to	45.00
No. 2 bundles	33.00 to	35.00
No. 1 cupola cast	89.00 to	91.00
Mixed yard cast	79.00 to	81.00

Hamilton, Ont.

Brokers buying price per net ton on cars:

No. 1 heavy melting	$ 33.00
No. 2 heavy melting cut 2 ft. and under	30.00
No. 1 dealer bundles	40.00
No. 2 bundles	5.00
Mixed steel scrap	17.00
Bush. new fact. prep'd.	38.00
Bush. new fact. unprp'd.	30.00
Machine shop turn.	18.00
Short steel turn.	21.00
Mixed bor. and turn.	10.00
Cast scrap	30.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 55.00 to	$ 56.00
No. 2 hvy. melting	43.00 to	44.00
No. 2 bundles	28.00 to	30.00
Machine shop turn.	8.00 to	9.00
Crushed turnings	22.00 to	24.00
Shredder scrap	55.00 to	56.00
Cut structural plate 2 ft. and under	77.00 to	78.00
Unstripped motor blocks	55.00 to	57.00
Cupola cast	64.00 to	66.00

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STEEL PRICES

Codes identify Producers listed in the Key on page 75. (Prices quoted are mill base prices in cents per pound unless otherwise noted and do not reflect extras or surcharges.) N.A. = Not available.

Billets, Blooms, Slabs

(Dollars per net ton)

Carbon Rerolling, Midwest	
W5	$366.00
N4	$366.00
West	
C6	$346.00
Carbon Forging, East	
B3(3), C10	$420.00
R3	$420.00
Midwest	
R3, U1, W5	$420.00
S1	$420.00
C10	$420.00
K2	$400.00
W5	$400.00
West	
B3(2)	$430.00
C6	$420.00
South	
A7	$420.00
Alloy, East	
R3, C10	$463.00
B3	$459.00
Midwest	
W8, W5	$459.00
S1, U1	$459.00
R3	$459.00
West	
B3	$469.00
C6	$469.00
South	
A7	$436.00

Piling Sheet Steel

(cents per lb)

Midwest	
U1	26.45

Structurals

Carbon, East	
B3(2)	23.90
U1, J3	23.90
Midwest	
A7, N4	24.15
C20	22.90
W8	22.90
I3, T10, U1	23.90
West	
C6	22.85
U1	24.40
B3(2)	21.65
South	
C16, U1	23.90
T10	22.90
A8	Cmp*
High-Strength, Low Alloy, East	
B3(2)	23.90
U1, J3	23.90
Midwest	
N4	24.15
W8	24.15
U1	23.90
I3	24.15
West	
U1, A7	24.40
B3(2)	21.65
South	
U1, C16	23.90
Wide Flange, Carbon, East	
B3	23.90
U1, A7, J3	23.90
Midwest	
U1	23.90
N4	24.15
I3	24.15
West	
U1	24.40
C6	21.90
South	
A7	24.15

Strip

Hot-Rolled, Carbon, Cut II Edge—all widths, East	
B3, U1	20.80
J3	20.80
Midwest	
A7	20.80
D1	20.80
S1, J3, D1	20.80
W3	20.80
N4	17.50
W5	20.80
U1	20.80
B3, G2, I3, I4, M2, R3, J3, G3	20.80
West	
K1	20.80
B3	24.70
South	
R3	20.80
Cold-Rolled, Carbon Max. 25%, East	
E4	29.75
R7, S10, B4	29.60
P15	24.80
S7	Cmp*
U1	33.25
D1(1)	Cmp*
Midwest	
G4	24.80
I4	26.15
W14	22.95
S1, U1, J4	33.25
T4	Cmp*

*Composite pricing

West	
U1	33.25
High-Strength, Hot-Rolled, Low Alloy, Cut Edge & Mill Edge—all widths, East (plus extras)*	
Midwest	
M2, G3, R3, W3, I4, J3, G2	20.80
A7	20.80
S1	20.80
I3	20.80
West	
K1	20.80
South	
R3	20.80
High-Strength, Cold-Rolled, Low Alloy, Mill Edge, East	
R7	29.00
Midwest	
S1	32.00
Alloy, Hot-Rolled, Midwest (plus extras)*	
S1	23.20
G4	25.80
I4	23.95
Alloy, Cold-Rolled, East	
C11, E4, M8	43.35
R7	32.75
B4	42.60
P15	32.10
S1	39.90
Midwest	
I4	41.75
S1	37.65

Sheets

Hot-Rolled, Carbon (18 Ga & Hvyr), East	
B3	20.80
J3	20.80
U1	20.80
Midwest	
A7, U1, B3, G2, G3, I3, M2, R3, W3	20.80
S1, W5, D1	20.80
J3	20.80
I4	19.50
West	
U1	21.30
K1	20.80
South	
R3	20.80
Cold-Rolled, East, Class I	
B3(2), U1	24.65
J3	24.65
Midwest	
B3, I3, G3, R3, M2, U1(2)	24.65
G2, W3, M11	24.65
I4	22.00
J3, A7	24.65
S1, W5, D1	24.65
West	
U1	25.15
South	
R3	24.65
Galvanized (hot-dipped), East	
B3(2)	26.25
Midwest	
J3, D1	26.25
I3, W5, S1	27.15
U1, A7, R3, Y1	26.25
G2, W3, M11	26.25
West	
K1	27.15
South	
U1	26.25
R3	26.25
Enameling, Midwest	
A7, I3, U1, J3	26.15
S1	26.50
Long-Terne, Midwest	
W5	28.30
A7, U1	27.60
R3	27.60

Wire Rod

East	
B3(2)	22.35
U1	22.35
Midwest	
N4	22.35
U1, K2	22.35
West	
A7	22.00
C6	21.45
B3	23.25
U1	22.35
South	
G7	22.35

Tinplate

Electrolytic Tinplate	
Single Reduced (70 lb)	
East	**per base box**
B3, J3	$26.29
U1	26.29
Midwest	
B3	$26.29
U1	26.29
J3 (75 lb)	26.29
M11	26.29
W3	26.29
W5	26.29
West	
K1	$25.44
U1	26.79
South	
U1	$26.29
Double Reduced (55 lb)	
Midwest	
M11 (50 lb)	$21.49
B3, J3	21.49
U1	21.49
W3	21.49
W5	21.49
West	
K1	$20.39
U1	21.99
South	
U1	$21.49
Black Plate	
Single Reduced (75 lb)	
East	
B3	$23.36
Midwest	
J3	$23.36
M11	23.36
I3, U1, W5	23.36
W3	23.36
West	
K1	$24.01
U1	23.36
Double Reduced (55 lb)	
East	
B3	$18.93
Midwest	
M11	$18.93
W5, U1	18.93
J3	18.93
W3	18.93
W5	18.93
West	
U1	$18.93
South	
U1	$18.93

**70 lb—base weight extra 45¢
***50 lb—base weight extra $1.40

Bars

Carbon Steel, Hot-Rolled (Special quality)	
East	
R3, K3	23.95
R5	23.95
B3(3), J3	23.95
U1, C10	23.95
Midwest	
A7, C20	23.95
N4	23.95
U1, I3, I4	23.95
R3, T10	24.075
K2	23.95
West	
B3	23.95
C6	24.45
U1	23.95
B3	24.70
South	
A8	20.65
A7	23.95
C16	23.95
Cold-Finished Carbon, East	
A11	22.15
J3(2)	31.50
R3	31.50
C21	21.15
J3, L2	31.00
C2	23.025
M8, W10, T11, S8	31.00
N1	24.475
R4	22.25
B4	29.50
M1	23.025
B4, C10	31.00
J3	31.50
Midwest	
B5, W10, Y1, W8, R3	31.00
J3	32.15
B1	19.80
L2	30.75
N9	31.00
P3	19.85
W14	22.20
J3(3)	31.00
B5	31.25
J3	32.15
West	
B5	31.20
B5	34.90
R3	31.20-34.90
South	
B5	32.85
J3	31.95
C16	24.40
J3	31.95
Alloy, Hot-Rolled, East	
B3(2), R5, K3, C10	26.10
R3	26.10
J3	26.10
Midwest	
A7, U1	26.10
I3, C10	26.10
R3	26.10
I4	24.85
West	
B3, U1	26.10
B5	18.50
C6	26.60
B3	27.10
South	
A7	24.85
A8	22.00
Alloy, Cold Drawn, East	
L2	35.20
R3, N1, C2	35.40
M1	28.025
R4	25.65
A11	30.50
J3, W10, L2	34.85
T11, S8	34.85
C10	34.85
J3(2)	35.40
Midwest	
B5, R3, C10	34.85
C2	28.275
J3, M9, W10	35.40
P3	22.75
B1	22.70
N9	34.85
L2	34.85
B5	35.10
J3	36.00
J3	34.85
West	
R3	35.20-38.25
B5	35.20
B5	38.25
South	
J3	35.40
C16	28.00
B5	36.75

Plates

Carbon Steel, East	
B3(2)	25.25
L4	24.25
P2	24.25
U1	24.25
J3	25.25
Midwest	
B3, G3, R3, G2, S1	25.25
I3, I4, W5	25.25
J3, A7	21.70
U1	24.25
West	
A7, B3, C6, O2	25.25
K1	23.50
U1	24.25
South	
R3	25.25
A7	25.25
U1	24.25
Alloy, East	
B3, J3	33.05
U1, L4	33.05
P2	32.05
Midwest	
B3	33.05
G2, G3	31.05
I4, U1	33.05
West	
B3	33.05
O2	30.55
K1	31.30
South	
A7	27.55

Wire

Carbon Steel Wire, East	
B3(2)	27.10
U1	27.70
A11	22.15
Midwest	
A7, R3	24.60
N4, W7	27.40
K2	24.20
South	
U1	27.70
A8	22.85
West	
A7	25.95
C8	24.95

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STEEL PRICES

Producer Key
With Principal Offices

A4 American Cladmetals Co., Carnegie, Pa.
A7 Armco Inc., Middletown, Ohio
A8 Atlantic Steel Co., Atlanta, Ga.
A11 Atlantic Wire Co., Branford, Conn.

B1 Baron Drawn Steel Corp., Toledo, Ohio
B3 Bethlehem Steel Corp., Bethlehem, Pa.
B4 Blair Strip Steel Co., New Castle, Pa.
B5 Bliss & Laughlin Steel Co., Harvey, Ill.

C1 Calstrip Corp., Los Angeles
C6 CF&I Steel Corp., Pueblo, Colo.
C10 Copperweld Steel Co., Warren, Ohio
C11 Crucible Divisions, Colt Industries, Pittsburgh, Pa.
C15 G. O. Carlson, Inc., Thorndale, Pa.
C16 Connors Steel Co., Birmingham, Ala.
C20 Calumet Steel Div., Chicago Heights, Ill.
C21 Cumberland Steel Co., Cumberland, Md.

D1 Detroit Strip Div., Cyclops Corp.
D2 Driver Wilber B., Co., Newark, N. J.
D3 Driver Harris Co., Harrison, N. J.

E3 Enamel Products & Plating Co., McKeesport, Pa.
E4 Elliot Bros. Steel Co., New Castle, Pa.

F1 Firth Sterling, Inc., McKeesport, Pa.

G2 Granite City Steel Co., Granite City, Ill.
G3 Great Lakes Steel Division, National Steel Corp., Ecorse, Mich.
G4 Greer Steel Co., Dover, O.
G5 Green River Steel Corp., Owensboro, Ky.
G6 Gibraltar Steel Corp., Buffalo, N. Y.
G7 Georgetown Steel Corp., Georgetown, S. C.
G8 Guterl Special Steel Corp.

H1 Hercules Drawn Steel Corp., Livonia, Mich.

I2 Ingersoll Steel Div., New Castle, Ind.
I3 Inland Steel Co., Chicago, Ill.
I4 Interlake Steel Corp., Chicago

J2 Jessop Steel Corp., Washington, Pa.
J3 Jones & Laughlin Steel Corp., Pittsburgh
J4 Joslyn Mfg. & Supply Co., Chicago
J5 Judson Steel Corp., Emeryville, Calif.

K1 Kaiser Steel Corp., Fontana, Calif
K2 Keystone Consolidated Industries, Inc.
K3 Kentucky Electric Steel Co., Ashland, Kentucky
K5 Kemco Div., Foote Mineral Co., Keokuk, Iowa

L2 La Salle Steel Co., Chicago
L3 Lone Star Steel Co., Dallas
L4 Lukens Steel Co., Coatesville, Pa.
L5 Litho-Strip Corp., Chicago

M2 McLouth Steel Corp., Detroit
M4 Mid States Steel & Wire Co., Crawfordsville, Ind.
M8 Mill Strip Products Div., National Steel Service Center, National Steel Corp.
M9 Moltrup Steel Products Co., Beaver Falls, Pa.
M11 Midwest Steel Div., National Steel Corp., Portage, Ind.

N1 Northeast Precision Steel Co., Boston, Mass.
N4 Northwestern Steel & Wire Co., Sterling, Ill.
N6 Northwest Steel Rolling Mills, Seattle, Wash.
N9 Nelsen Steel & Wire Co., Chicago, Ill.
N10 North Star Steel Co., Saint Paul, Minnesota

O2 Oregon Steel Mills, Portland, Ore.

P2 Phoenix Steel Corp., Claymont, Del.
P3 Wyckoff Steel Div., Plymouth, Mich.
P9 Pacific States Steel Co., Niles, Cal
P13 Penn Dixie Steel Corp., Kokomo, Ind.
P14 Pacific Tube Co., Los Angeles
P15 Philadelphia Steel and Wire Corp., Phila.

R3 Republic Steel Corp., Cleveland
R4 Ramco Steel Co., Buffalo, N. Y.
R5 Roblin Steel Corp., Inc., North Tonawanda, N. Y.
R6 Rodney Metals, Inc., New Bedford, Mass.
R7 Rome Strip Steel Co., Rome, N. Y.

S1 Sharon Steel Corp., Sharon, Pa.
S7 Stanley Works, New Britain, Conn.
S8 Superior Drawn Steel Co., Monaca, Pa.
S10 Seneca Steel Service, Buffalo, N. Y.
S16 Southern Precision Steel Co., Gulfport, Miss.

T4 Thomas Steel Strip Co., Warren, O.
T5 Timken Company, Steel Division, Canton, O.
T7 Texas Steel Co., Fort Worth, Tex.
T9 Triumph Electro Corp., Chicago, Ill.
T10 Tennessee Forging Steel Corp., Harriman, Tenn.
T11 Teledyne Columbia-Summerill, Carnegie, Pa.

U1 United States Steel Corp., Pittsburgh, Pa.

W3 Weirton Steel Division, National Steel Corp., Weirton, West Va.
W5 Wheeling-Pittsburgh Steel Corp.
W7 Wilson Steel & Wire Co., Chicago
W10 Wyckoff Steel Div., Ampco-Pittsburgh Corp., Pittsburgh, Pa.
W14 Whittaker Steel Strip Div., Detroit, Mich.

Steel Service Center Prices

Price, Dollars per 100 lb

Cities* / City Delivery Charge*	Sheets			Strip	Plates	Shapes	Bars		Alloy Bars			
	Hot-Rolled (10 gage)	Cold-Rolled (20 gage)	Galvanized (16 gage)	Hot-Rolled Strip	Plates	Standard Structurals	Hot-Rolled (merchant)	Cold Finished	Hot-Rolled 8620 As Rolled	Hot-Rolled 4140 Annealed	Cold-Drawn 8620 As Rolled	Cold-Drawn 4140 Annealed
Atlanta	25.04	29.02	33.66	34.17	29.52	31.46	21.27	42.11	43.20	54.80	71.74	74.69
Baltimore	32.25	36.51	42.48	42.85	35.56	37.48	23.10	48.63	56.80	61.08	71.68	77.88
Birmingham	25.90	30.24	36.47	35.03	29.67	31.68	22.25	43.40	50.53	51.39	69.70	76.27
Boston	23.43	28.25	31.93	44.27	37.43	37.68	21.80	47.75	57.60	60.66	68.49	75.74
Buffalo	27.75	34.41	36.35	43.01	35.20	32.46	18.26	45.85	54.11	55.64	62.09	70.72
Chicago	21.78	28.33	30.78	31.84	29.67	28.35	16.86	39.94	37.97	47.00	54.02	59.36
Cincinnati	22.30	28.89	33.39	33.39	28.93	32.06	17.72	43.24	41.70	48.16	53.82	60.37
Cleveland	27.94	32.57	34.35	34.35	28.73	32.56	18.40	42.81	40.45	50.48	56.63	62.50
Denver	32.69	38.65	38.66	42.32	36.91	38.18	22.79	49.35	56.13	65.40	72.50	81.22
Detroit	22.66	31.48	32.73	33.22	28.59	23.84	17.62	40.94	38.69	43.81	53.47	59.90
Houston	23.83	28.28	32.53	41.35	34.12	37.90	47.18	42.45	56.79	64.97	73.05	81.09
Kansas City	23.34	27.07	31.59	32.39	32.19	33.18	20.29	44.35	50.64	58.69	64.36	73.32
Los Angeles	34.08	36.78	39.14	47.53	38.37	40.45	32.55	50.66	62.71	72.33	78.31	87.97
Memphis	31.11	31.16	35.27	37.84	31.07	33.84	32.34	39.82	52.82	56.96	67.85	77.44
Milwaukee	22.11	27.93	30.74	31.97	30.45	16.92	16.02	40.02	38.60	47.77	53.91	59.67
New York	22.00	26.53	30.70	42.40	31.67	32.93	20.83	48.87	50.98	59.83	68.45	75.35
Philadelphia	28.57	34.80	37.22	44.85	33.40	37.64	22.78	48.62	52.89	60.22	69.85	76.05
Pittsburgh	23.85	28.39	32.99	40.86	33.39	37.00	21.35	43.55	48.95	59.88	66.19	72.84
Portland	32.04	37.16	41.51	33.10	34.82	38.20	53.64	56.85	61.00	64.10	66.10	....
San Francisco	31.07	36.66	39.71	46.66	39.32	40.88	30.78	51.14	63.99	72.88	79.58	88.10
Seattle	29.85	35.14	37.68	46.76	32.89	35.32	29.86	51.38	64.02	70.14	73.83	87.67
Spokane	21.08	30.56	33.56	36.69	35.18	25.16	20.32	41.00	42.02	46.30	....	58.32
St. Louis	24.60	29.12	32.77	36.50	28.14	32.45	19.00	43.42	44.47	52.13	59.81	65.93
St. Paul	23.43	27.76	32.10	35.20	29.31	32.38	17.22	43.95	40.17	49.68	52.53	61.93

Base Quantities. All HR products may be combined for quantity. Hot-rolled sheet, 10 ga x 36 x 96—120; Cold-rolled sheet, 20 ga x 36 x 120; Galv. sheet—16 ga x 36—120; Hot-rolled strip—⅛" x 1"; Plate ¼" x 84/; Shapes—I-Beams 6 x 12.5; Hot-rolled bar—Rounds ¾-2 15/16; Cold finished bar—C 1018—1" rounds; Alloy bar—Hot-rolled 8620—1⅝" round; Cold drawn—1" round; Hot-rolled 4140—1⅝" round; Cold drawn—1" round. Check local supplier for additions or deductions from base.

*Prices at all points include metropolitan delivery charges.